

## Claims

What is claimed is:

- [c1] A method for correcting data signal errors in a meter, comprising:
  - receiving ordered data signals from the meter;
  - analyzing the sequence of the ordered data signals to detect a missing signal; and
  - compensating for the missing data signal by adding a predetermined value to a sequence counter.
- [c2] The method of claim 1, where a missing data signal is detected by calculating a variable based on a present data signal and a previous data signal in the sequence of ordered data signals.
- [c3] The method of claim 2, where values related to the previous data signal are stored in a status register.
- [c4] The method of claim 3, where the status register is a non-volatile memory component.
- [c5] The method of claim 4, where the non-volatile memory component is a ferro-electric random access memory component.
- [c6] The method of claim 2, where the variable is calculated by subtracting a binary value of the previous data signal from a binary value of the present data signal.
- [c7] The method of claim 6, where the subtracting is done by adding the two's complement of the binary value of the previous data signal to the binary value of the present data signal.

- [c8] The method of claim 1, where a missing data signal is detected by determining whether a binary state value for a present data signal is the same as a binary state value for a previous data signal.
- [c9] The method of claim 1, where the sequence counter counts up.
- [c10] The method of claim 1, where the sequence counter counts down.
- [c11] A method for correcting data signal errors in a meter, comprising:
  - receiving ordered data signals from the meter;
  - analyzing the sequence of the ordered data signals to detect a missing signal; and
  - compensating for the missing data signal by adjusting a variable that indicates the last valid direction of the meter.
- [c12] The method of claim 11, where a missing data signal is detected by calculating a variable based on a present data signal and a previous data signal in the sequence of data signals.
- [c13] The method of claim 12, where values related to the previous data signal are stored in a status register.
- [c14] The method of claim 13, where the status register is a non-volatile memory component.
- [c15] The method of claim 14, where the non-volatile memory component is a ferro-electric random access memory component.
- [c16] The method of claim 12, where the variable is calculated by subtracting a binary value of the previous data signal from a binary value of the present data signal.

- [c17] The method of claim 16, where the subtracting is done by adding the two's complement of the binary value of the previous data signal to the binary value of the present data signal.
- [c18] The method of claim 11, where a missing data signal is detected by determining whether a binary state value for a present data signal is the same as a binary state value for a previous data signal.
- [c19] The method of claim 11, where the sequence counter counts up.
- [c20] The method of claim 11, where the sequence counter counts down.
- [c21] A method for detecting errors in a meter, comprising:  
    step for receiving a sequence of data signals of the meter;  
    step for analyzing the sequence of data signals to detect a missing data signal; and  
    step for compensating for a missing data signal.